

Rec'd PCT/PTO  
**PATENT COOPERATION TREATY**  
**PCT**

09 SEP 2004

REC'D 30 JUN 2004

WIPO

PCT


**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 4-32412A/HO 56	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/02715	International filing date (day/month/year) 14.03.2003	Priority date (day/month/year) 15.03.2002
International Patent Classification (IPC) or both national classification and IPC A61K31/397		
Applicant NOVARTIS AG et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  22.08.2003	Date of completion of this report  29.06.2004
Name and mailing address of the International preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Schmid, J-C  Telephone No. +49 89 2399-8347



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/EP 03/02715**

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-74 as originally filed

**Claims, Numbers**

1-17 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/EP 03/02715**

---

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	1-17
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-17
Industrial applicability (IA)	Yes: Claims	1-17
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP 03/02715

Reference is made to the following document/s/:

- D1: WO 99 04794 A (OATES BRYAN ;FINKE PAUL E (US); MACCOSS MALCOLM (US); MERCK & CO I) 4 February 1999 (1999-02-04)  
D2: EP-A-0 903 349 (HOFFMANN LA ROCHE) 24 March 1999 (1999-03-24)

- 1). The claimed compounds represent a novel selection of a subgroup of compounds within the compounds generically disclosed in D1, in particular in that  $m=n=0$ . D2 discloses pyrrolidine, piperidine or piperazine derivatives as opposed to the claimed azitidine derivatives.

The subject-matter of claims 1 to 17 is therefore novel over the cited prior art (Article 33(2) PCT).

- 2). The technical problem underlying the application may be seen in the provision of further CCR-3 receptor antagonists.

D1 which discloses derivatives having said activity is considered to represent the closest prior art.

As mentioned above, the compounds of present claim 1 represent a selection of a subgroup of compounds within the CCR-3 receptor antagonists generically disclosed in D1.

Such a selection could be regarded as being inventive, if the selected group of derivatives present unexpected activities (e.g. a particular selectivity over the other receptors) in relation to those described in the state of the art. However, there are no data in the application showing such unexpected activities -for example showing that the claimed compounds are selective CCR-3 receptor antagonists.

The skilled man faced with the problem of finding further CCR-3 receptor antagonists, viz compounds which are not explicitly disclosed in the prior art, would have considered the compounds defined by the generic formula (I) of D1 as obvious solutions and therefore would arrive at the claimed subject-matter without the exercise of inventive skill.

The subject-matter of claims 1-17 lacks therefore an inventive step (Article 33(3) PCT).